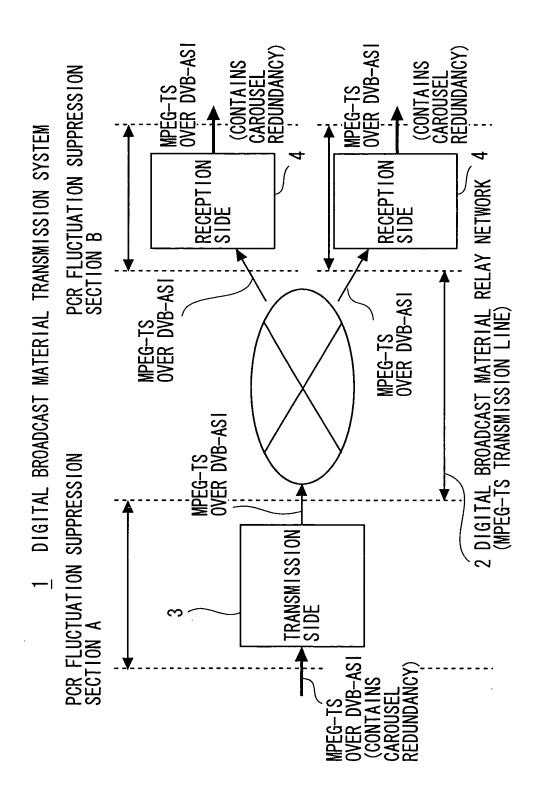
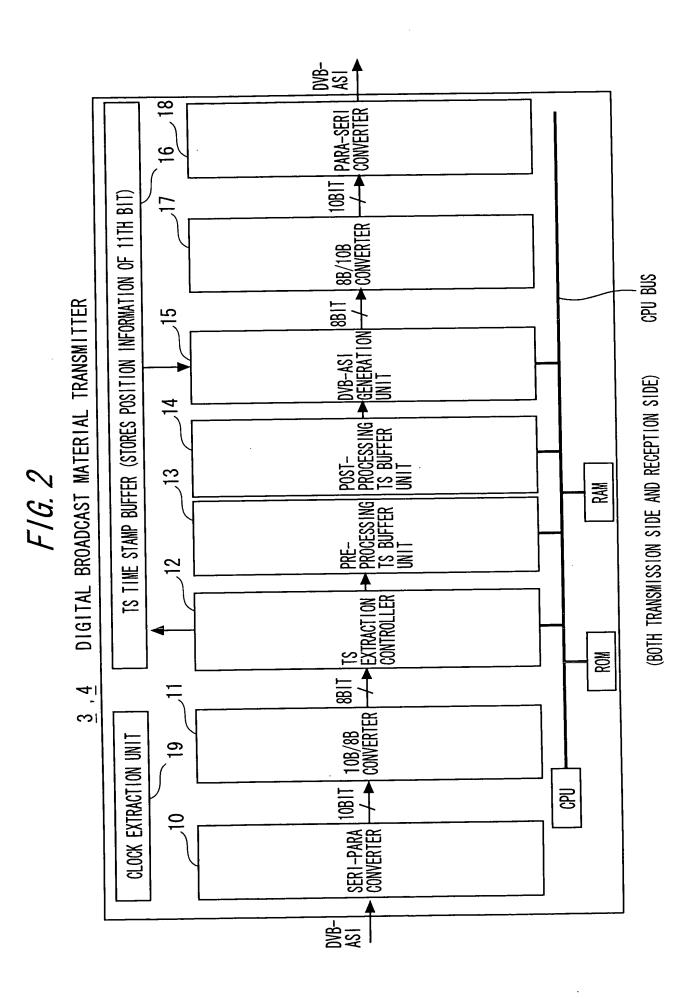
F/G. 1



3, 4 : DIGITAL BROADCAST MATERIAL TRANSMITTER



F16.3

SPI:SYNCHRONOUS PARALLEL INTERFACE

SSI:SYNCHRONOUS SERIAL INTERFACE SYNCHRONOUS

ASI: ASYNCHRONOUS SERIAL INTERFACE

LAYER 2: TRANSPORT PROTOCOL (MPEG2-TS)

LAYER 1: DATA ENCODING (8B/10B CONVERSION)

LAYER 0: PHYSICAL REQUIREMENTS (270Mbps, OPTICAL or COAXIAL)

MPEG2 TS 1S0/1EC 13818-1 MPEG2 TS INTRA-DEVICE INPUT MPEG2 TS INTRA-DEVICE OUTPUT LAYER 2 8B/10B ENCODING 8B/10B DECODING SYNCHRONIZATION-BYTE INSERTION SYNCHRONIZATION BYTE DETECTION PARA-SERI CONVERSION CLOCK REGENERATIO /SERI-PARA CONVERSION LAYER AMPLIFIER // BUFFER AMPLIFIER /BUFFER COUPLING IMPEDENCE INTEGRATION OR OPTICAL COUPLING IMPEDENCE INTEGRATION-OR OPTICAL RECEIVER CONNECTOR CONNECTOR LAYER 0 OUTPUT DVB-ASI --INPUT

DBA-AS1 CENEREC EN50083-9:1998

INS I DE DEVICE

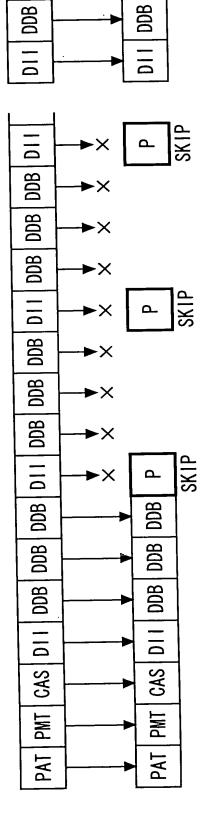
OUTS I DE DEVICE

F16.5

PS PCR FINAL BYTE SOMETIMES PRESENT IN VALID DATA 10 BYTES BACK <u>></u> ¥ ¥ > $\overline{\mathbf{z}}$ X 노 S 궃

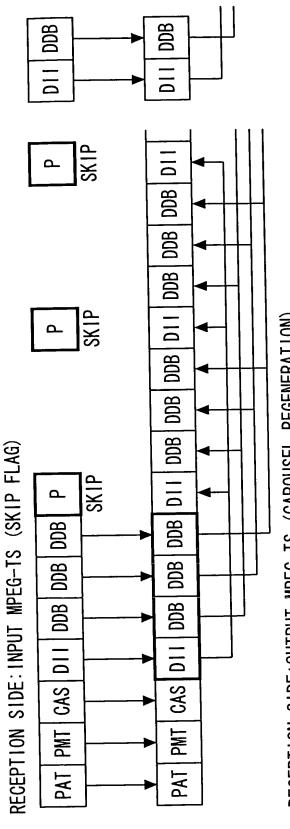
WHERE THERE COULD BE ADAPTATION FIELD PCR





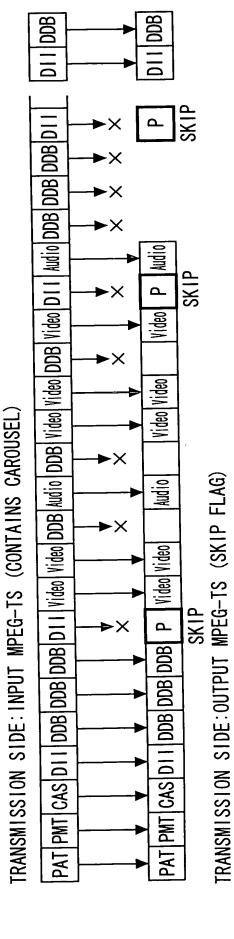
TRANSMISSION SIDE: OUTPUT MPEG-TS (SKIP FLAG)

PAT:PROGRAM ASSOCIATION SECTION
PMT:TS PROGRAM MAP SECTION
CAS:CONDITIONAL ACCESS SECTION
P: PRIVATE SECTION
DII:DSM-CC SECTION (CONTAINS DownloadInfoIndication)
DDB:DSM-CC SECTION (CONTAINS DownloadDataBlock)



RECEPTION SIDE: OUTPUT MPEG-TS (CAROUSEL REGENERATION)

PAT:PROGRAM ASSOCIATION SECTION
PMT:TS PROGRAM MAP SECTION
CAS:CONDITIONAL ACCESS SECTION
P: PRIVATE SECTION
DII:DSM-CC SECTION (CONTAINS DownloadDataBlock)
DDB:DSM-CC SECTION (CONTAINS DownloadDataBlock)



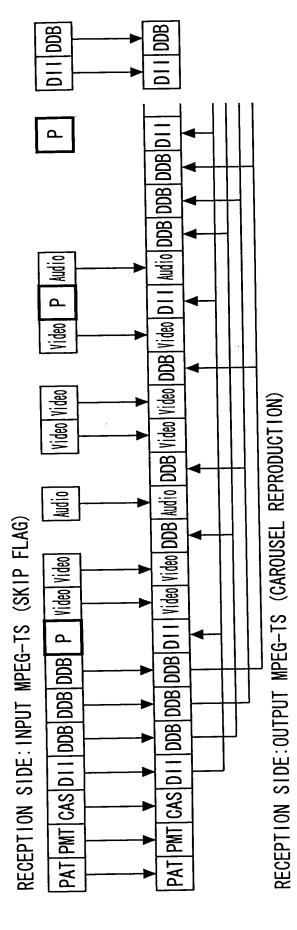
PAT:PROGRAM ASSOCIATION SECTION PMT:TS PROGRAM MAP SECTION CAS:CONDITIONAL ACCESS SECTION

DII:DSM-CC SECTION (CONTAINS DownloadInfoIndication)

DDB:DSM-CC SECTION (CONTAINS DOWNIOadDataBlock)

Video:PES Packet (Video)

(Audio) Audio:PES Packet



PAT:PROGRAM ASSOCIATION SECTION PMT:TS PROGRAM:MAP SECTION CAS:CONDITIONAL ACCESS SECTION P: PRIVATE SECTION

DII:DSM-CC SECTION (CONTAINS DownloadInfoIndication) (CONTAINS DownloadDataBlock)

(Video) DDB:DSM-CC SECTION Video:PES Packet

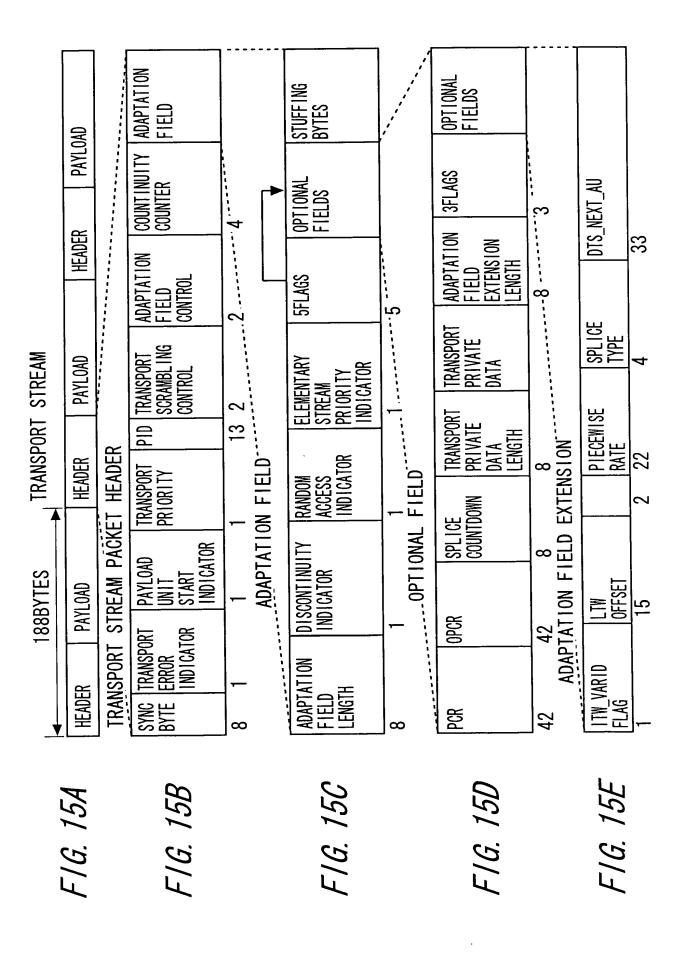
(Audio) Audio:PES Packet

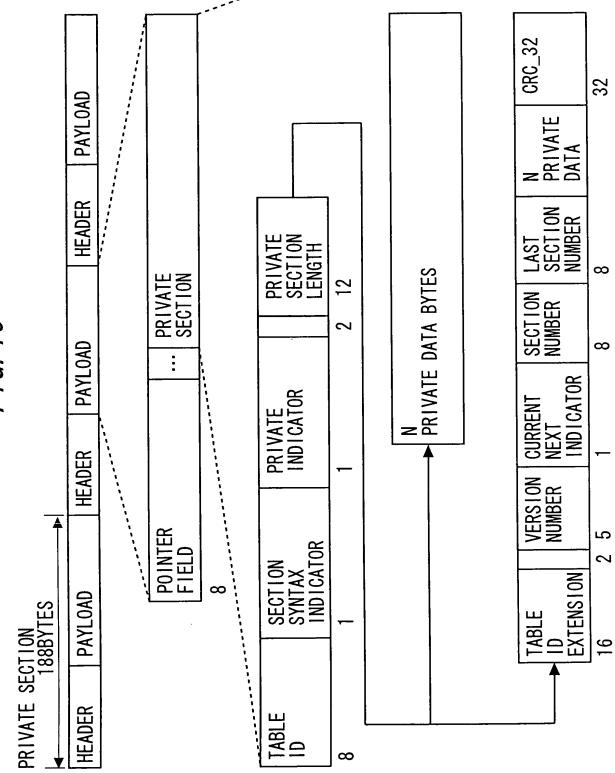
```
uimsbf
uimsbf
uimsbf
uimsbf
                                                                bslbf
            32
                                                                 \infty
[CAROUSEL SKIP DESCRIPTORS] ( ) {
    dsscriptor_tag
    dsscriptor_length
    CurrentSkipCount
    TotalSkipCount
    for (i=0;i<N;i++ ) {
```

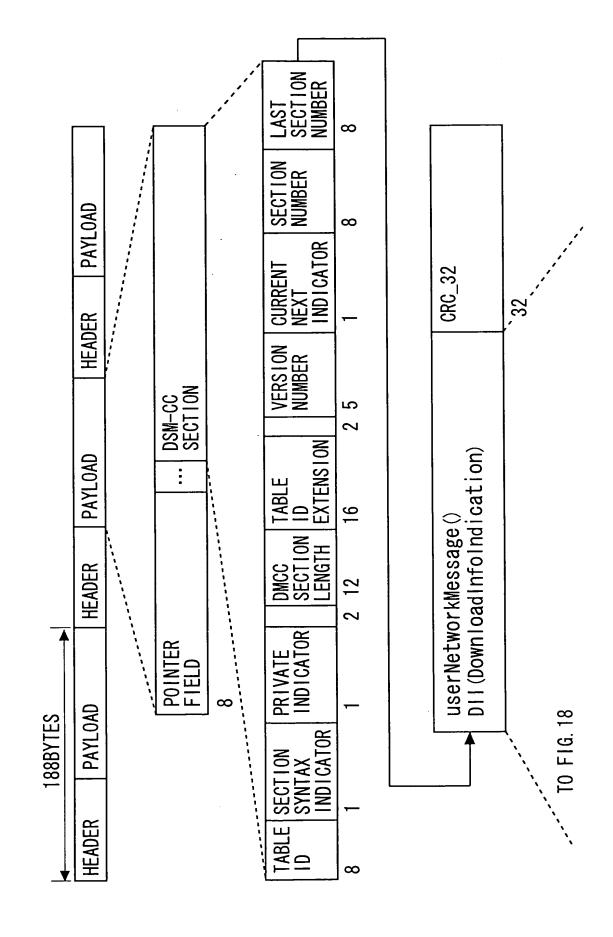
```
uimsbf
uimsbf
                                                          bslbf
                   \infty \infty
                                                             \infty
[STUFFING DESCRIPTORS] ( ) {
    dsscriptor_tag
    dsscriptor_length
    for (i=0;i<\overline{N};i++ ) {
        stuffing_byte
}</pre>
```

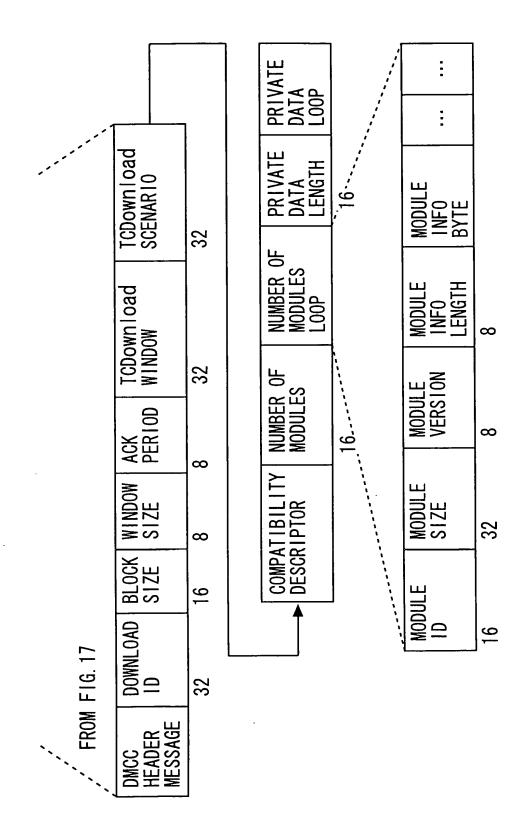
```
uimsbf
bslbf
bslbf
bslbf
uimsbf
                   \infty
praivate_section( ) {
    table_id
    section_syntax_indicator
    praivate_indicator
    reserved
    private_section_length
    [CAROUSEL_SKIP_DESCRIPTORS] ( )
```

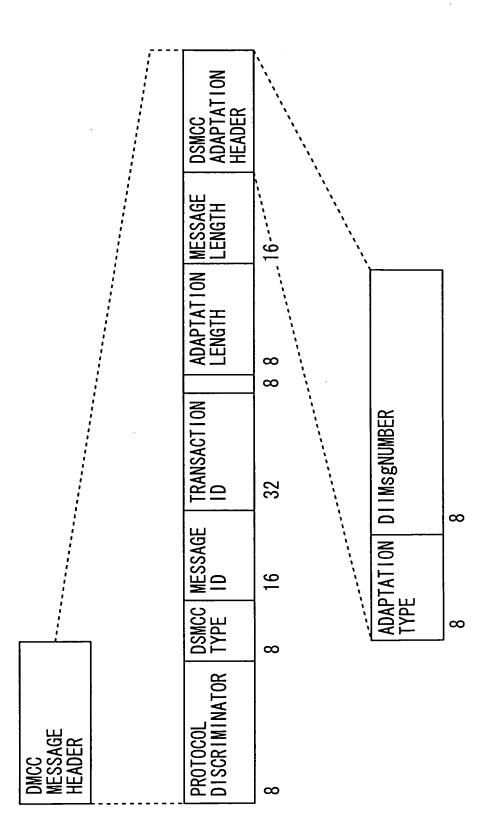
```
uimsbf
bslbf
bslbf
bslbf
uimsbf
             22--8
praivate_section() {
    table_id
    section_syntax_indicator
    praivate_indicator
    reserved
    private_section_length
    [SUTFFING DESCRIPTORS] ()
```

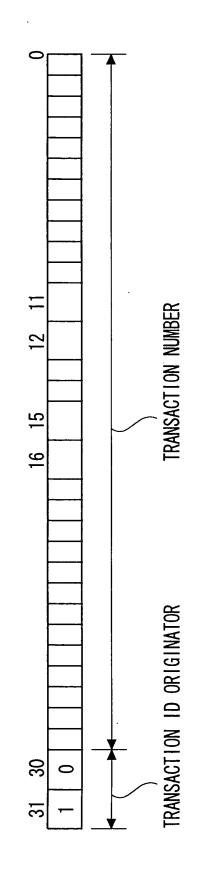


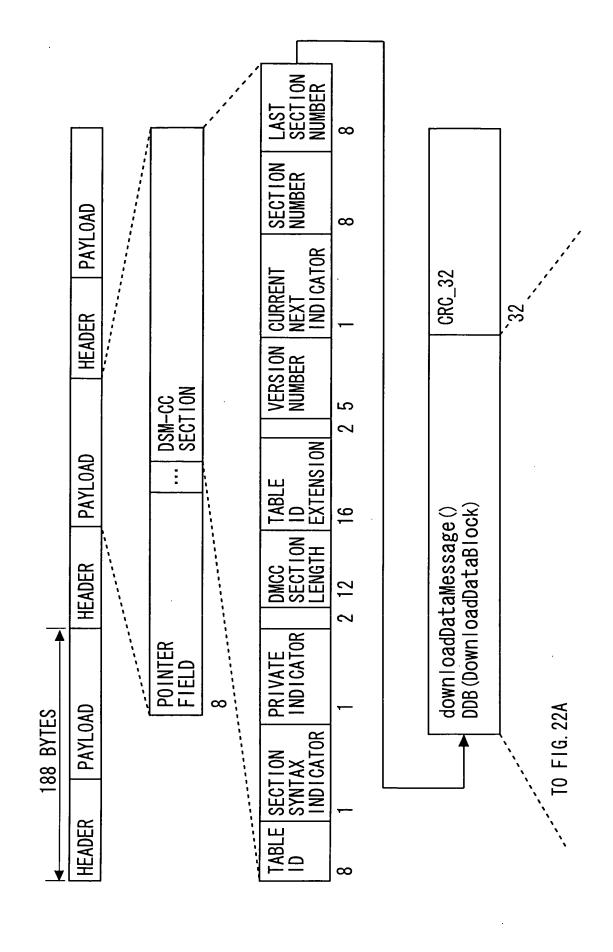


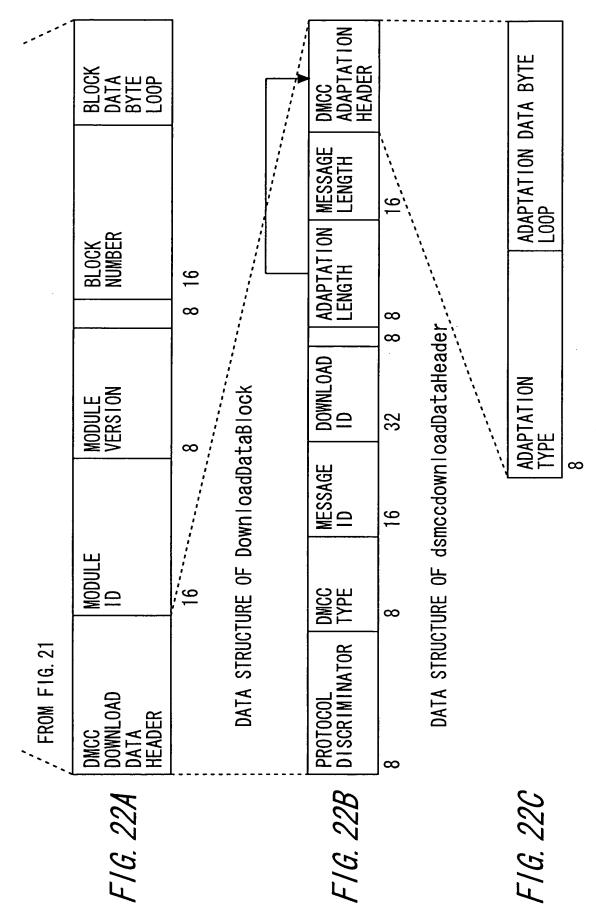












DATA STRUCTURE OF dsmccAdaptationHeader

FIG. 23A

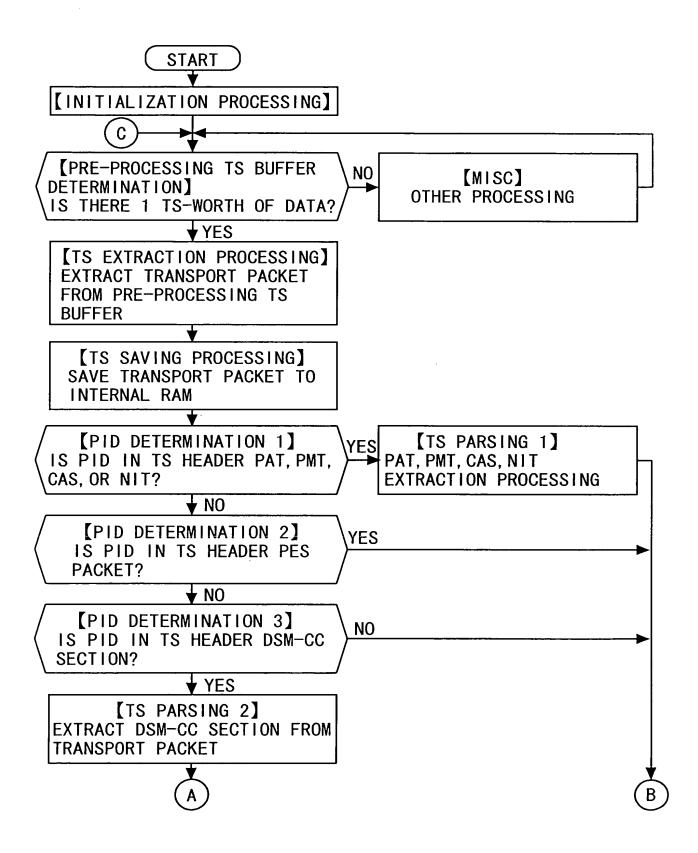
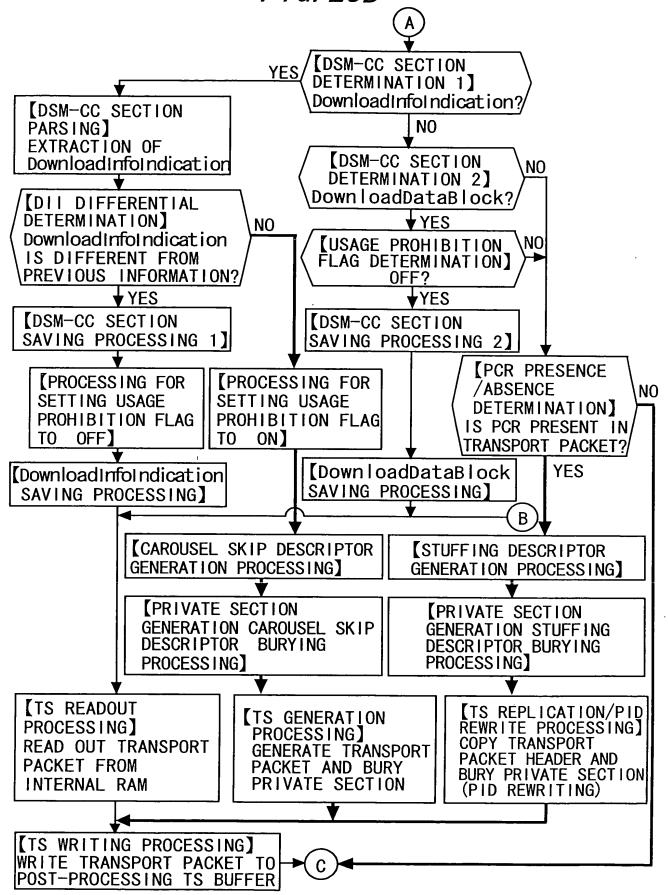


FIG. 23B



F/G. 24A

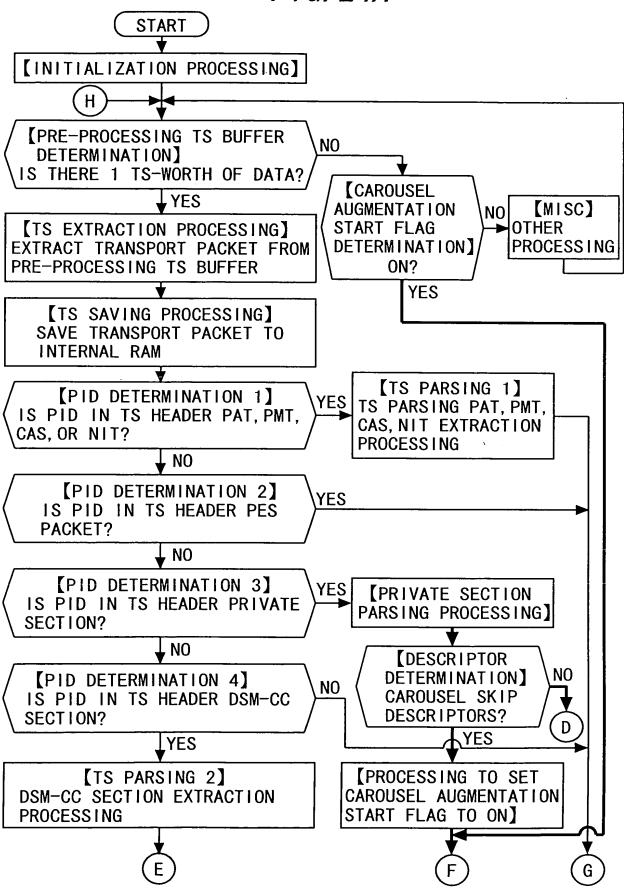
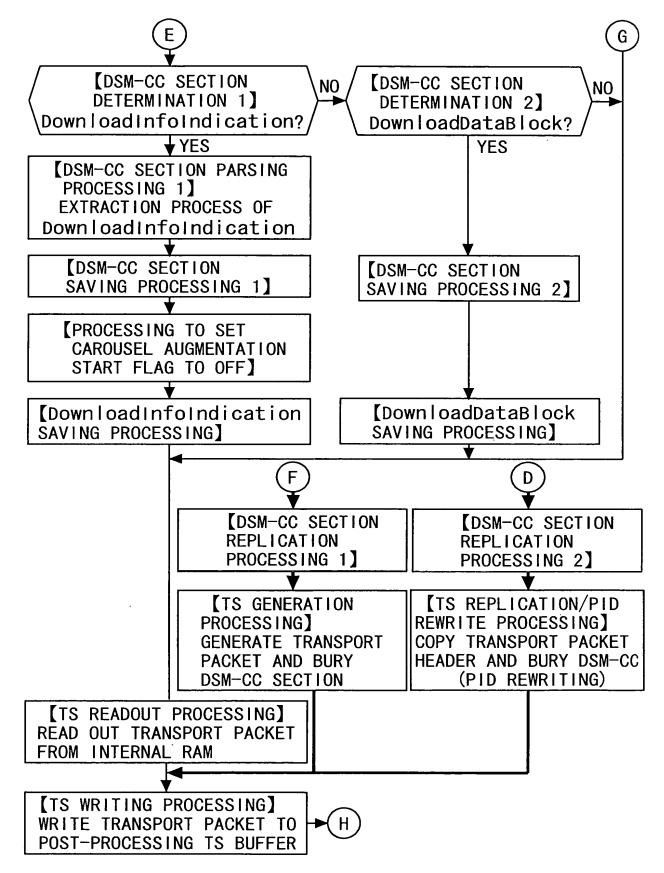


FIG. 24B



3, 4 DIGITAL BROADCAST MATERIAL TRANSMITTER F1G. 25

